

Amendments to the Specification:

Please amend the paragraph starting at page 1, line 25 and ending at page 2, line 16 to read, as follows.

The image forming apparatus above described does not have high productivity ~~because~~ ~~b-cause~~ the intermediate transfer body is required to be rotated the same times as the color number of ~~[[f]]~~ the overlapped toners to overlap the toner images. Another image forming apparatus having plural photosensitive bodies, capable of overlapping the toner images in the prescribed number of colors on the intermediate transfer body where the intermediate transfer body is rotated twice has been known as an image forming apparatus improving the productivity but not rendering the apparatus itself significantly larger. This apparatus is called as a two-path system. In a case where, e.g., images overlapped with four color images are formed, such an image forming apparatus has two photosensitive bodies and forms a toner image overlapped with the four color toners upon rotating the intermediate transfer body two turns as, at every turn of the intermediate transfer body, the toner images of two colors are carried on the intermediate transfer body. That is, in this situation, there is an advantage to ensure a double productivity with respect to the image forming apparatus having a single photosensitive body.

Please amend the paragraphs starting at page 3, line 7 and ending at page 6, line 11 to read, as follows.

In another object of the invention, an image forming apparatus is provided including: a plurality of movable image carriers, said image carriers forming latent images upon exposure at respective exposing positions to form a toner image at the latent images;

a movable intermediate transfer body, to which the toner image is transferred from said image carriers, for carrying the toner image; and contacting member means separably contacting to said intermediate transfer body at a contacting position, wherein said image carrier located most closely to said contacting position in a direction extending along said intermediate transfer body on a downstream side in a moving direction of said intermediate transfer body with respect to said contacting position, defines a first image carrier where a position for transfer between said first image carrier and said intermediate transfer body defines a primary transfer position, wherein said image carrier located most closely to said contacting position in a direction extending along said intermediate transfer body on an upstream side in a moving direction of said intermediate transfer body with respect to said contacting position, defines a second image carrier where a position for transfer between said second image carrier and said intermediate transfer body defines a second transfer position, wherein a toner image formed on said intermediate transfer body is again transferred onto a transfer material after passing through said primary transfer position and said second transfer position again, and wherein formula $L_a - S_a \geq L_m$ is satisfied where a distance from said contacting position to said primary transfer position along the moving direction of said intermediate transfer body is set as L_a , where a distance from said exposing position on said first image carrier to said primary transfer position along the moving direction of said first image carrier is set as S_a , and where an image length formed on said intermediate transfer body is set as L_m . The latent image formation on the first image carrier is done at a time different from contacting operation of the contacting member.

In yet another object of the invention, an image forming apparatus is provided including: a plurality of movable image carriers, said image carriers forming latent images upon exposure at respective exposing positions to form a toner image at the latent images; a movable intermediate transfer body, to which the toner image is transferred from said image carriers, for carrying the toner image; and contacting member means separably contacting to said intermediate transfer body at a contacting position, wherein said image carrier located most closely to said contacting position in a direction extending along said intermediate transfer body on a downstream side in a moving direction of said intermediate transfer body with respect to said contacting position, defines a first image carrier where a position for transfer between said first image carrier and said intermediate transfer body defines a primary transfer position, wherein said image carrier located most closely to said contacting position in a direction extending along said intermediate transfer body on an upstream side in a moving direction of said intermediate transfer body with respect to said contacting position, defines a second image carrier where a position for transfer between said second image carrier and said intermediate transfer body defines a second transfer position, wherein a toner image formed on said intermediate transfer body is again transferred onto a transfer material after passing through said primary transfer position and said second transfer position again, and wherein formula $L_b + S_b \geq L_m$ is satisfied where a distance from said contacting position to said second transfer position along the moving route of said intermediate transfer body in a direction reverse to the moving direction of said intermediate transfer body is set as L_b , where a distance from said exposing position on said second image carrier to said second transfer position along the move of said second image carrier is set as S_b , and where an image length formed on said intermediate transfer

body is set as L_m . The latent image formation on the second image carrier is done at a time different from contacting operation of the contacting member.

In still another object of the invention, an image forming apparatus is provided including: a plurality of movable image carriers, said image carriers forming latent images upon exposure at respective exposing positions to form a toner image at the latent images; a movable intermediate transfer body, to which the toner image is transferred from said image carriers, for carrying the toner image; and contacting member means separably contacting to said intermediate transfer body, wherein said image carrier located on an upstream side in a moving direction of said intermediate transfer body, among said plural image carriers, defines a first image carrier, whereas said image carrier located on a downstream side of said first image carrier in the moving direction of said intermediate transfer body, defines a second image carrier where a position for transfer between said first image carrier and said intermediate transfer body defines a primary transfer position and where a position for transfer between said second image carrier and said intermediate transfer body defines a second transfer position, wherein a toner image formed on said intermediate transfer body is again transferred onto a transfer material after passing through said primary transfer position and said second transfer position again, wherein formula $L_c + S_a - S_b \geq L_m$ is satisfied where a distance from said exposing position on said first image carrier to said primary transfer position along the moving direction ~~direction~~ of said first image carrier is set as S_a , where a distance from said exposing position on said second image carrier to said second transfer position along the moving direction of said second image carrier is set as S_b , where a distance from said primary transfer position to said second transfer position along the moving direction of the intermediate transfer body is set

as L_c , and where an image length formed on said intermediate transfer body is set as L_m , and wherein latent image formation on said first image carrier, latent image formation on said second image carrier, and contacting operation of said contacting member means are done at times different from each other.

Please amend the paragraphs starting at page 8, line 3 and ending at page 9, line 3 to read, as follows.

Around an intermediate transfer belt 61 disposed are the first image forming portion A and the image forming portion B, each including a photosensitive drum, an exposing apparatus, a charging roller, the two switchable developing apparatuses, and a cleaning apparatus. Tension roller 64 imparts tension to the intermediate transfer belt 61.

In the image forming portion A, the photosensitive drum 1a is charged with the charging roller 2a, thereby rendering image exposure for yellow as a first color with the exposing apparatus 3a. The latent image formed on the photosensitive drum 1a is developed with the developing apparatus 4a corresponding to yellow as the first color. It is to be noted that the developing apparatuses 4a, 4c are movable in the arrow direction in the drawing by a driving means, not shown, which switches the developing apparatuses. The developed yellow toner images are transferred onto the intermediate transfer belt 61 by a primary transfer roller 65a. The image forming portion B forms image of magenta as the second color as to match the position of the yellow toner image as the first color on the intermediate transfer belt 61. Image formation at the image forming portion B is done, in substantially the same way as in the yellow image formation as the first color at the image forming portion A described above, in which the photosensitive drum 1b is charged with the charging roller 2b, and in which an exposing apparatus 3b exposes images of magenta

as the second color. The latent image formed on the photosensitive drum 1b are developed with the developing apparatus 4b corresponding to magenta as the second color. It is to be noted that the developing apparatuses 4b, 4d are movable in the arrow direction in the drawing by a driving means, not shown, which switches the developing apparatuses. The developed magenta toner images are transferred onto the intermediate transfer belt 61 by a primary transfer roller 65b as to match the [[th]] position of the [[th]] yellow toner image as the [[th]] first color on the intermediate transfer belt 61.

Please amend the paragraph starting at page 10, line 8 and ending at page 11, line 5 to read, as follows.

Timing that the secondary transfer roller 66, as a contacting member means separably contacting during the process that four-color toner images are sequentially formed on the intermediate transfer belt 61 as an intermediate transfer body and transferred to the recording material P and as a means for transferring the toner images from the intermediate transfer belt to the transfer material, comes in contact with the intermediate transfer belt 61, is required to be after the rear end of the toner image of the first and second colors on the intermediate transfer belt 61 passes through a secondary transfer position T2 and before the front end of the four-color toner image on the intermediate transfer belt 61 reaches the secondary transfer position T2. This is because if the contact is made before the rear end of the toner image of the first and second colors passes through the secondary transfer position T2 the rear end of the toner image may be attached to the secondary transfer roller 66 and because if the contact is made after the front end of the four-color toner images passes through the secondary transfer position T2 the front end of

the four color toner image may not be transferred properly on a recording material. In a meanwhile, mechanical vibrations may occur at a time that the secondary transfer roller 66 contacts, and the vibrations may be transmitted to the exposing apparatuses 3a, 3b and the photosensitive drums 1a, 1b, thereby generating so-called exposure blurs. Such exposure blurs may become strips extending horizontally on an actual image and thereby reduce image quality. It is very difficult to prevent exposure blur from occurring completely even where the apparatus body, the photosensitive drum, and the exposing apparatus are made with high rigidity.

Please amend the paragraph starting at page 12, line 3 and ending at page 12, line 9 to read, as follows.

Here, ~~the image length~~ ~~the image length~~ L_m is described. If the image length L_m of the maximum length that can be recorded at the apparatus satisfies Formula 1, the image having a shorter length than the image of the maximum length inevitably satisfies Formula 1, thereby not generating any exposure blur. Where the maximum image length that can be recorded at the apparatus is set to be the image length L_m satisfying Formula 1, this apparatus can correspond to images in all size.

Please amend the paragraph starting at page 16, line 15 and ending at page 16, line 17 to read, as follows.

Accordingly, the distance S_a between Pa-T1a is about 25 mm to 126 mm [[m]] in consideration of the photosensitive drum diameters D_a , D_b , and the angle θ [[δ]] (this is substantially the same to the second image forming portion B, the description is omitted).

Please amend the paragraph starting at page 17, line 13 and ending at page 17, line 16 to read, as follows.

The point shown with α is a point at which $L_a + L_b$ become minimum. In fact, the first transfer point T1b of the second image forming portion B never coincides to the secondary transfer position T2, so that L_b cannot be zero. However, if a point close to α in the drawing is chosen, $L_a + L_b$ become smaller, and thereby the apparatus can be made compact.

Please amend the paragraphs starting at page 18, line 1 and ending at page 18, line 14 to read, as follows.

In this embodiment, ~~embodiment~~ it is set that $L_a > L_b$, or namely, the contact position T2 of the secondary transfer roller 66 is disposed near the primary transfer position T1b of the second image forming portion B with respect to the primary transfer position T1a of the first image forming portion A. Hereinafter, it is described with reference to Fig. 2. In this embodiment, the intermediate transfer belt 61 is tensioned with two rollers 62, 63 as the minimum to provide a compacter apparatus. The formula $L_a > L_b$ is made by rendering the secondary transfer roller 66 to be structured as to separably contact with the roller 62 located near the second image forming portion B.

It is to be noted that as in the first embodiment described above, in a case where the intermediate transfer belt 61 is tensioned with three rollers 62, 63, and 64, ~~rollers~~, Formula $L_a > L_b$ may be used by disposing the roller facing to the secondary transfer roller 66 nearer to the second image forming portion B than the first image forming portion B.

Please amend the paragraph starting at page 18, line 22 and ending at page 19, line 3 to read, as follows.

It is to be noted that in the embodiment described above, as the apparatus satisfying Formula 1, exemplified is an apparatus with image length L_m corresponding to A4 size, but this invention is not limited to this. The apparatus can be corresponding to, e.g., A3 size, and in such a case the length L_m is set equal to 420 mm. As the size of L_m of those, the image length L_m in the moving direction of the recording material is desirably selected from one of [f] most frequently used images in the image forming apparatus, and it is desirable to ensure the high image quality for images frequently used while realizing compact size and high productivity.

Please amend the paragraph starting at page 23, line 14 and ending at page 24, line 5 to read, as follows.

Fig. 7 shows a moment when the secondary transfer roller 66 for performing the secondary transfer for the first sheet comes in contact with the intermediate transfer belt 61. The portions I1 to I3 shown with hatching are regions relating to toner images of the first sheet on the intermediate transfer belt 61. The toner image I1 on the intermediate transfer belt 61 on a downstream side in the rotational direction of the intermediate transfer belt 61 with respect to the primary transfer position T1b of the image forming portion B is a toner image in which toner images of four colors are overlapped; the toner image I2 on the intermediate transfer belt 61 on an upstream side in the rotational direction of the intermediate transfer belt 61 with respect to the primary transfer position T1b of the image forming portion B is a three-color toner image of first to three colors; the toner image I3 on

the photosensitive drum 1b is a toner image of the fourth color. The front end position of the toner image [[I]] sometimes simply referred to as "I" on the intermediate transfer belt 61 is set as I_{top} . A distance from the position I_{top} to the secondary transfer position T2 is set as L_i .

Please amend the paragraphs starting at page 24, line 20 and ending at page 26, line 2 to read, as follows.

Therefore, if Formula 4 is satisfied, the contact timing of the secondary transfer roller 66 can be done at a timing different from the exposure, and if images are successively formed, images can be obtained without any adverse influence due to irregularity on latent images on the first image [[imag]] carrier and without any adverse influence due to irregularity on latent ~~on latent~~ images on the [[th]] second image carrier in any of images of the [[th]] first sheet image and the second sheet image.

In a case that $S_b + L_b - L_m + \underline{L_a} \leq \underline{S_a}$, ~~$L_a - S_a$~~ , if exposure blur is avoided, the image front end of the second sheet is located on a downstream side in the rotational direction of the intermediate transfer belt 61 with respect to I_{top} . Therefore, in such a case, during successive recording, the position of I_{top} is shifted by a prescribed amount in a downstream direction of the intermediate transfer belt 61 at each recording sheet, thereby avoiding exposure blurs due to contacting shocks of the secondary transfer roller 66. However, when successive recording is made, this means that the rotation of the intermediate transfer belt 61 required for recording of one sheet takes two turns or more, and the recording rate becomes slower by that portion.

As described above, according to this embodiment, in addition to the first embodiment as described above, the relation among the distance S_a between P_a and $T1a$, the distance L_a between $T2$ and $T1a$, the distance S_b between P_b and $T1b$, the distance L_b between $T1b$ and $T2$, and the image length L_m is set as $S_b + L_b - L_m + L_a \geq S_a$, ~~$L_a < S_a$~~ thereby preventing exposure blurs from occurring in the first image forming portion due to contacting shocks of the secondary transfer roller 66 at the second sheet or later during the successive recording without reducing the recording rate in addition to the advantages of the first embodiment.

In a case that $S_b + L_b - L_m + L_a < S_a$, exposure blurs on the first image carrier due to contacting shocks of the secondary transfer roller 66 can be prevented by forming toner images on the intermediate transfer belt 61 on the downstream side in the moving direction of the belt at each recording sheet when recording is made ~~[[ld]]~~ successively, though the recording rate can be slightly slower.

Please amend the paragraph starting at page 26, line 26 and ending at page 27, line 11 to read, as follows.

In this embodiment, the exposure blurs described above are avoided by rendering a distance S_a (hereinafter referred to as “the distance between P_a and $T1a$ ”) in a rotational direction of the photosensitive drum 1a (first image carrier) from the exposing position P_a to the primary transfer position (primary transfer position) $T1a$ on the photosensitive drum 1a in the first image forming portion A, a distance S_b (hereinafter referred to as “the distance between P_b and $T1b$ ”) in a rotational direction of the photosensitive drum 1b (first image carrier) from the exposing position P_b to the primary transfer position (primary

transfer position) T1b on the photosensitive drum 1b in the second image forming portion B, a distance Lc between the primary transfer positions T1a, T1b on the intermediate transfer belt 61, and a length Lm of image (hereinafter referred to as “image length”) to be formed in the conveyance direction, satisfy the relation as follows:

$$Lc + Sa - \underline{Sb} \geq Lm \quad [\text{Formula 5}].$$

Please amend the paragraph starting at page 27, line 15 and ending at page 27, line 20 to read, as follows.

Fig. 9 is for the eighth embodiment of the invention. Members having the same structure and function as those in the first embodiment as described above are assigned with the corresponding ~~[[same]]~~ reference numerals Sc, Pc, 1c, 2c, 3c, 7c, T1c, and 65c, ~~numbers,~~ respectively, and a description is omitted. In this embodiment, a mechanism having three image carriers is described. Recently, improvements on image quality are done by reducing particle feelings in images and increasing color range volumes using toners of four colors or more.

Please amend the paragraph starting at page 28, line 23 and ending at page 29, line 1 to read, as follows.

The image forming portion C forms a toner image to overlap, on the intermediate transfer belt 61, the toner image formed at the image forming portion A and to form the toner image formed at the image forming portion B thereon. Structures depicted by reference characters Sc, Pc, 1c, 2c, 3c, 7c, T1c, and 65c of image forming portion C correspond respectively to their counterpart structures Sa, Pa, 1a, 2a, 3a, 7a, T1a, and 65a

of image forming portion A. By twice circulations of those toner images, a toner image overlapped by six colors of the toners is formed on the intermediate transfer belt 61.